

IN THE CLAIMS:

Please amend Claims 1-4, 7-13, 15-20 as follows. Note that all the claims currently pending in this application, including those not presently being amended, have been reproduced below for the Examiner's convenience.

1. (Currently Amended) An image display apparatus comprising:
- a light source for supplying illumination light;
 - a reflection type display device which reflects the illumination light and modulates the illumination light into image light;
 - an illumination optical system for guiding the illumination light to the reflection type display device; wherein the illumination optical system comprises:
 - a) a first optical member for directing the illumination light toward the reflection type display device; and
 - b) a second optical member including:
 - i) ~~a secondary light source generating~~ part generating a secondary light source with the illumination light emitted from said light source, in which the light from the part emerges toward said first optical member; and
 - ii) a reflecting surface which guides illumination light ~~other than illumination light directly~~ which is not incident directly on the ~~secondary light source generating~~ part ~~among the illumination light emitted from said light source;~~ to the ~~secondary light source generating~~ part, and from which the illumination light from the ~~secondary light source~~ emerges toward the first optical member; and
 - a projection optical system for guiding the image light to an observer.

2. (Currently Amended) An image display apparatus according to claim 1,

wherein ~~the~~ said first optical member comprises a first surface on which the illumination light from ~~the secondary light source~~ said part is incident, a second surface which totally ~~reflect~~ reflects the light incident from the first surface, and a third surface from which the light totally reflected by the second surface emerges toward ~~the~~ said reflection type display device; and

the image light modulated by ~~the~~ said reflection type display device again enters into ~~the~~ said first optical member from the third surface, and emerges toward ~~the~~ said projection optical system from the second surface.

3. (Currently Amended) An image display apparatus according to claim 1, wherein ~~the secondary light source generating~~ said part is a diffusing surface.

4. (Currently Amended) An image display apparatus according to claim 1, wherein ~~the secondary light source generating~~ said part is a reflecting and diffusing surface.

5 and 6. (Withdrawn).

7. (Currently Amendment) An image display apparatus according to claim 1, further comprising:

a reflecting-liquid-crystal display device as ~~the~~ said reflection type display device; and

a polarizing member ~~which makes~~ capable of polarizing the illumination light ~~be polarized light, and/or performs analysis of~~ and analyzing the image light,

wherein ~~the~~ said polarizing member is arranged in a position where a condition, $I/I_0 < 0.1$ is satisfied with letting optical intensity of outdoor daylight entering from an observer side to ~~the~~ said projection optical system on ~~the~~ said reflective-liquid-crystal display device be I_0 and letting optical intensity on ~~the~~ said polarizing member be I .

8. (Currently Amended) An image display apparatus according to claim 1, further comprising:

a reflective-liquid-crystal display device as ~~the~~ said reflection type display device;

a first polarizing member which converts illumination light emerged from ~~the~~ said second optical member into S-polarized light to be incident on ~~the~~ said first optical member; and

a second polarizing member for analyzing the image light modulated by ~~the~~ said reflective-liquid-crystal display device into P-polarized light.

9. (Currently Amended) An image display apparatus according to claim 1,

wherein ~~the~~ said projection optical system comprises an optical element having a plurality of optical surfaces; and

at least one among the plurality of said optical surfaces is a reflecting surface and at least one is a rotationally asymmetrical surface.

10. (Currently Amended) An image display apparatus comprising:

a light source for supplying illumination light;

a reflection type display device which reflects the illumination light and modulates the illumination light into image light; and

an illumination optical system for guiding the illumination light to ~~the~~ said reflection type display device; ~~and~~, wherein the illumination optical system comprises:

a first optical member for directing the illumination light toward ~~the~~ said reflection type display device; and

a second optical member including a reflecting surface which deflects a principal optical path of the illumination light from ~~the~~ said light source and emitting the illumination light, reflected by ~~the~~ said reflecting surface, toward ~~the~~ said first optical member; and

a projection optical system for guiding the image light to an observer.

11. (Currently Amended) An image display apparatus according to claim 10,

wherein ~~the~~ said first optical member comprises a first surface on which the illumination light is incident, a second surface which totally reflects the light incident from the first surface, and a third surface from which the light totally reflected by the second surface emerges toward ~~the~~ said reflection type display device; and

the image light modulated by ~~the~~ said reflection type display device again enters into ~~the~~ said first optical member from the third surface, and emerges toward ~~the~~ said projection optical system from the second surface.

12. (Currently Amended) An image display apparatus according to claim 10,

wherein the reflecting surface of ~~the~~ said second optical member ~~is a secondary light source generating surface which~~ generates a secondary light source with the illumination light emitted from said light source.

13. (Currently Amended) An image display apparatus according to claim 12,

wherein ~~the~~ said second optical member ~~has a reflecting surface which~~ guides illumination light ~~other than illumination light, directly~~ which is not incident directly on the reflecting surface to the reflecting surface ~~secondary light source generating surface, to the secondary light source generating surface among the illumination light from said light source.~~

14. (Withdrawn).

15. (Currently Amended) An image display apparatus according to claim 10, further comprising:

a reflective-liquid-crystal display device as ~~the~~ said reflection type display device; and

a polarizing member ~~which makes~~ capable of polarizing the illumination light ~~be polarized light and/or performs analysis of~~ and analyzing the image light,

wherein ~~the~~ said polarizing member is arranged in a position where a condition, $I_l/I_o < 0.1$ is satisfied with letting optical intensity of outdoor daylight entering from

an observer side to ~~the~~ said projection optical system on ~~the~~ said reflective-liquid-crystal display device be IO and letting optical intensity on ~~the~~ said polarizing member be II.

16. (Currently Amended) An image display apparatus according to claim 10, further comprising:

a reflective-liquid-crystal display device as ~~the~~ said reflection type display device;

a first polarizing member which ~~converts~~ converts the illumination light emerged from ~~the~~ said second optical member into S-polarized light to be incident on ~~the~~ said first optical member; and

a second polarizing member for analyzing the image light modulated by ~~the~~ said reflective-liquid-crystal display device into P-polarized light.

17. (Currently Amended) An image display apparatus according to claim 10,

wherein ~~the~~ said projection optical system comprises an optical element having a plurality of optical surfaces, and

at least one among the plurality of ~~the~~ said optical surfaces is a reflecting surface and at least one is a rotationally asymmetrical surface.

18. (Currently Amended) An image display apparatus comprising:

the image display apparatus according to any one of claims 1 ~~and~~ or 10;

and

an image information output apparatus for supplying image information to ~~the~~ said image display apparatus.

19. (Currently Amended) An optical system comprising:

an illumination optical system for guiding illumination light to a reflection type display device; ~~and,~~

wherein ~~the~~ said illumination optical system comprises:

a) a first optical member for directing the illumination light toward the reflection type display device; and

b) a second optical member including:

i) a ~~secondary light source generating~~ part which generates a secondary light source with the illumination light emitted from ~~said~~ a light source, in which the light from said part emerges toward said first optical member; and

ii) a reflecting surface which guides illumination light, ~~other than illumination light directly~~ which is not incident directly on the ~~secondary light source generating part among the illumination light emitted from said light source;~~ to the ~~secondary light source generating part;~~ and from which the illumination light from the secondary light source emerges ~~foward the first optical member;~~ and

a projection optical system for guiding the image light, reflected by the said reflection type display device, to an observer.

20. (Currently Amended) An optical system comprising:

an illumination optical system for guiding illumination light to a reflection type display device; ~~and,~~

wherein ~~the~~ said illumination optical system comprises:

a first optical member for directing the illumination light toward the reflection type display device; and

a second optical member that includes a reflecting surface which deflects a principal optical path of illumination light from ~~the~~ a light source and emits the illumination light, reflected by the reflecting surface, toward ~~the~~ said first optical member; and

a projection optical system for guiding image light, reflected by the reflection type display device, to an observer.

*He
considered*